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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Hans-Georg Seimetz
Serial No: 10/607,847
Filed: June 27, 2003
For: EQUIPMENT AND PROCESS FRO PRODUCING A MOLDED
ARTICLE
Examiner: Matthew J. Daniels
Art Unit: 1732

Mail Stop: Appeal Brief-Patents
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

BRIEF ON APPEAL

S I R:

This appeal is taken from the Final Action mailed February
10, 2006.

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Real Party in Interest

The real party in interest in the above-identified application is:

KOMAGE-Gellner Maschinenfabrik KG
Dr. Hermann-Gellner Strasse 1
D-54427 Kell am See
Germany

Related Appeals and Interferences

There are no related appeals or interferences of which Applicants are aware regarding the above-identified application.

Status of Claims

Claims 5-13 have been withdrawn. Claims 1-5 and 14 are pending in the application and are subject to the present appeal. Claims 1-4 and 14 stand rejected under 35 U.S.C. 103(a) over U.S. Patent No. 4,392,800 to Apuzzo in view of U.S. Patent No. 6,294,114 to Muirhead.

Status of Amendments After Final Rejection

No response after final was filed.

Summary of the Claimed Subject Matter

The claimed invention will now be summarized with reference to the drawings being made by way of reference numerals and reference to the specification being made by page and line numbers.

The claimed invention recites equipment for producing a molded article, especially a flat molded article (1), wherein the article has cavities (2) and webs (5) between the cavities (2) and two discs (3, 4) essentially joined by the webs (5) (see page 14, lines 5-7), the equipment comprising a press mold having a die (10) for forming an outer circumference of the molded article (1), and a lower ram (12) and an upper ram (14) for forming an outer surface of the disks (3, 4) (see page 2, lines 2-8 and page 14, lines 13-17 of the specification of the present application, (all further references to page and line number refer to the

specification) Figs. 2-5). A segment ram (13, 15) is integrated in at least one of the lower ram (12) and the upper ram (14) (see page 3, lines 7-8 and page 14, lines 13-15). The segment ram has ram segments (35, 35') having essentially the same cross-sectional shape as the webs (5) (see page 3, lines 8-10 and page 16, lines 3-4). The segment ram moves into and engages with the ram segments recesses (32, 32') having the same cross-sectional shape in the lower ram (12) or in the upper ram (14) (see page 3, lines 10-12 and page 15, lines 17-22 and Fig. 4). A removable core (6) is insertable into the press mold, and has the core segments (7) for forming the cavities (2) (see page 3, lines 12-14 and page 14, lines 8-12 and Fig. 6). Spaces (8) between the core segments (7) in the press mold are arranged congruently with the ram segments (35, 35') (see page 3, lines 14-16 and page 14, lines 8-10 and Fig. 6).

Grounds of Rejection to be Reviewed on Appeal

The following grounds are presented for review:

Whether claims 1-4 and 14 are unpatentable under 35 U.S.C. 103(a) over Apuzzo in view of Muirhead.

Argument

The Rejection of Claims 1-4 and 14 under 35 U.S.C. 103(a):

In rejecting claims 1-4 and 14, the Examiner stated the following in the final rejection:

"Claims 1-4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Apuzzo (4,392,800) in view of Muirhead (6,294,114).

Apuzzo discloses a molding apparatus, comprising a press mold having a ring shaped die (M1) forming an outer circumference of the product, an upper ram (SI) and a lower ram (PI), a segment ram (P2) integrated in the lower ram (PI) engaging the recesses in the upper ram.

However, Apuzzo fails to disclose a removable core having core segment corresponding with the segment rams.

Muirhead discloses a molding apparatus, comprising a mold having upper mold (44) and lower mold (42), and a core (27) insertable into the mold cavity as a preform for molding the article (col. 16, lines 14-16).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Apuzzo by providing a core as taught by Muirhead because the core would provide the desired stiffness and the shape to the final product.

In regard to claims 2-3, the orientation of the core into the mold cavity, it would have been obvious to one of ordinary skilled in the art to replace different molding cores that have different

structure in order to obtain a product with certain desired properties. There is no invention in merely changing the shape or form of an article without changing its function except in a design patent. See *Eskimo Pie Corp. v. Levous et al.*, 3 USPQ 23 and *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

In regard to claim 4, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Apuzzo by providing means for remove the core in and out of the mold cavity as taught by Muirhead because the core needs to be inserted into the mold cavity prior to the molding process.

In regard to claim 14, wherein the surface of the ram (P1) and the segment ram (P2) is capable of being aligned in an end position (Fig. 2C)."

Turning now to the references and particularly to the patent to Apuzzo, it can be seen that this patent discloses a press for pulverulent materials. The bars A1 and A2 of Apuzzo are not rams, but instead are cores, as indicated at column 3, line 30. The bores exert no pressure. Their purpose is only for filling a space. Fig. 2A shows the filling position (See column 3, lines 38 and 39). In this position the cores A1, A2 are pushed forward to the uppermost end of the cavity C. The mass is thus only filled in around the cores A1, A2. During pressing the cores A1, A2 remain still. They are located in corresponding hollow upper rams. Apuzzo does not disclose or suggest a construction having a segment ram integrated in at least one of the lower ram and the upper ram, wherein the segment ram has ram segments having essentially the

same cross-sectional shape as the webs, as in the presently claimed invention. Furthermore, Apuzzo does not teach a removable core insertable into the press mold, which removable core has the core segments for forming the cavities, wherein spaces between the core segments in the press mold are arranged congruently with the ram segments, as in the present invention.

The patent to Muirhead discloses a triple sheet thermoforming apparatus. The rigid member 27 is not a form core for forming hollow cavities that must be destroyed after hardening of the molded article. The rigid member 27 remains in the completed product in order to increase the strength of the article. For this reason the element is not called a "core" but instead a "rigid member" (see column 16, lines 15, 24-27 and 41-42 of Muirhead).

The rigid member 27 does not have any hollow cavities that are to cooperate with ram segments. 44a is only one deep draw part of the form corresponding to the rigid member 27.

The Examiner combined these references in determining that claims 1-4 would be unpatentable over such a combination. Applicant respectfully submits that there is no motivation

provided in either of the references to make the combination suggested by the Examiner. Neither of these references, nor their combination, teach equipment for producing a molded article as discussed previously and as recited in the presently claimed invention. Although Apuzzo has a lower ram P1 in which a further lower ram P2 can slide, and an upper ram S2 in which a further upper ram S2 can slide, these have the purpose of forming different surfaces on the molded article than the lower ram P1 and the upper ram S1. Therefore, P2 and S2 have different end positions than P1 and S1. This is different than the construction of the presently claimed invention with a segmented ram.

Conclusion

Accordingly, in view of the above considerations, it is Applicant's position that the Examiner's rejection of claims 1-4 and 14 under 35 U.S.C. 103(a) over a combination of Apuzzo in view of Muirhead is in error and should be reversed.

The amount of \$250.00 to cover the fee for filing an appeal brief is being charged as per attached form PTO-2038. Any additional fees or charges required at this time in connection with this application should be charged to Patent and Trademark Office Deposit Account No. 11-1835.

Respectfully submitted,

By 

Klaus P. Stoffel

Reg. No. 31,668

For: Friedrich Kueffner

Reg. No. 29,482

317 Madison Avenue, Suite 910

New York, New York 10017

(212) 986-3114

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, PO Box 1450 Alexandria, VA 22313-1450, on October 11, 2006.

By: 
Klaus P. Stoffel

Date: October 11, 2006

Claims Appendix

1. An equipment for producing a molded article, especially a flat molded article, wherein the article has cavities and webs between the cavities and two discs essentially joined by the webs, the equipment comprising

a press mold having a die for forming an outer circumference of the molded article, and a lower ram and an upper ram for forming an outer surface of the disks;

a segment ram integrated in at least one of the lower ram and the upper ram, wherein the segment ram has ram segments having essentially the same cross-sectional shape as the webs, wherein the segment ram moves into and engages with the ram segments recesses having the same cross-sectional shape in the lower ram or in the upper ram, and

a removable core insertable into the press mold, the removable core having the core segments for forming the cavities, wherein spaces between the core segments in the press mold are arranged congruently with the ram segments.

2. The equipment according to claim 1, wherein, for producing a ring-shaped molded article, the press mold additionally comprises a mandrel for forming an inner circumference of the article.

3. The equipment according to claim 2, further comprising, for producing a ring-shaped molded article having channels extending therethrough from the inner circumference to the outer circumference so as to form the cavities, a ring-shaped core centered on the die or the mandrel and adapted to the cross-section of the press mold cavity, wherein the core segments on the outer circumference and the inner circumference are held together in a grid-like manner by narrow ring segments, wherein the core can be destroyed or removed from the molded article by taking it apart.

4. The equipment according to claim 1, wherein the core has core parts configured to be removable from the molded article towards the outside and/or towards the inside, further comprising moving devices for pushing the core parts out of the die or the mandrel and for drawing the core parts into and towards the outside behind the die or into the mandrel.
14. The equipment according to claim 1, wherein the surfaces of the of the ram and the segment ram integrated therein are aligned in an end position.

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Evidence Appendix

N.A.

Related Proceedings Appendix

There are no related proceedings.